

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method comprising:

estimating a plurality of interpolated first color values from a plurality of first color values in a sub-block of image data using first color values from four direct neighbors in the sub-block to estimate an interpolated first color value, wherein the image data comprises first color values, second color values, and third color values;

deriving a plurality of second color hues using the second color values and the interpolated first color values; and

estimating a plurality of interpolated second color hues using the second color hues.

Claim 2 (original): The method of claim 1, further comprising:

deriving a second plurality of second color values from the plurality of interpolated second color hues.

Claim 3 (original): The method of claim 1, further comprising:

deriving a plurality of third color hues using the third color values and the interpolated first color values;

estimating a plurality of interpolated third color hues using the third color hues; and

deriving a second plurality of third color values from the plurality of interpolated third color hues.

Claim 4 (cancel)

Claim 5 (currently amended): The method of claim [[4]] 1, using the first color values from the four direct neighbors to estimate an interpolated first color value further comprising:

determining that the sub-block is a smooth zone; and

averaging four first color values from the four direct neighbors to produce the interpolated first color value.

Claim 6 (original): The method of claim 5, determining that the sub-block is a smooth zone further comprising:

identifying four first color values for the four direct neighbors; and

determining that the four first color values are substantially similar.

Claim 7 (currently amended): The method of claim [[4]] 1, using the first color values from the four direct neighbors to estimate an interpolated first color value further comprising:

determining that the sub-block is an edge zone; and

averaging three of the four direct neighbors whose first color values are similar to produce an edge zone average;

multiplying the edge zone average by a predetermined value to produce a result; and

averaging the result with the remaining direct neighbor.

Claim 8 (original): The method of claim 7, determining that the sub-block is an edge zone further comprising:

identifying four first color values for the four direct neighbors; and

determining that three of the four first color values are substantially similar.

Claim 9 (currently amended): The method of claim [[4]] 1, using the first color values from the four direct neighbors to estimate an interpolated first color value further comprising:

determining that the sub-block is a stripe zone;

averaging the first color values for a first direct neighbor and a second direct neighbor to produce a stripe zone average where the first direct neighbor and the second direct neighbor form a stripe and the first color values for the first direct neighbor and the second direct neighbor are substantially similar;

multiplying the stripe zone average by a predetermined value to produce a first partial result;

averaging the first color values for the third direct neighbor and the fourth direct neighbor to produce a second partial result;

adding the first partial result and the second partial result together to produce a stripe zone result; and

dividing the stripe zone result by four.

Claim 10 (original): The method of claim 9, determining that the sub-block is a stripe zone further comprising:

identifying four first color values for the four direct neighbors; and

determining that a first pair of the four first color values are substantially similar.

Claims 11-17 (canceled)

Claim 18 (currently amended): An article comprising a medium storing a software program ~~for enabling that if executed enable~~ a processor-based system to:

estimate a plurality of interpolated first color values from a plurality of first color values in a sub-block of image data using first color values from four direct neighbors in the sub-block to estimate an interpolated first color value, wherein the image data comprises first color values, second color values, and third color values;

derive a plurality of second color hues using the second color values and the interpolated first color values; and

estimate a plurality of interpolated second color hues using the second color hues.

Claim 19 (currently amended): The article of claim 18, further storing a software program ~~for enabling to enable~~ a processor-based system to:

derive a second plurality of second color values from the plurality of interpolated second color hues.

Claim 20 (currently amended): The article of claim 19, further storing a software program ~~for enabling to enable~~ a processor-based system to:

derive a plurality of third color hues using the third color values and the interpolated first color values;

estimate a plurality of interpolated third color hues using the third color hues; and

derive a second plurality of third color values from the plurality of interpolated third color hues.

Claim 21 (cancel)

Claim 22 (new): The method of claim 1, wherein the plurality of first color values comprise logarithmic values.

Claim 23 (new): A method comprising:

obtaining first color values for a plurality of pixels of an array, the array having first color filters, second color filters, and third color filters; and

interpolating a first color value for a pixel not having the first color filter using pixels having the first color filter in a horizontal direction and a vertical direction of the array.

Claim 24 (new): The method of claim 23, wherein the pixels having the first color filter comprise four neighboring pixels to the pixel not having the first color filter.

Claim 25 (new): The method of claim 23, wherein the first color values comprise logarithmic values.

Claim 26 (new): The method of claim 23, further comprising interpolating the first color value for the pixel according to one of a set of algorithms based on the first color values of the four neighboring pixels.

Claim 27 (new): The method of claim 23, further comprising interpolating the first color value for the pixel according to one of a set of algorithms based on whether the pixel is within a smooth zone, an edge zone, or a stripe zone.